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EFNEP . . . ACCOMPLISHMENTS AND FUTURE NEEDS

**An Analysis of The Expanded Food and
Nutrition Education Program conducted by
The Extension Service, USDA
and
The State Cooperative Extension Services**

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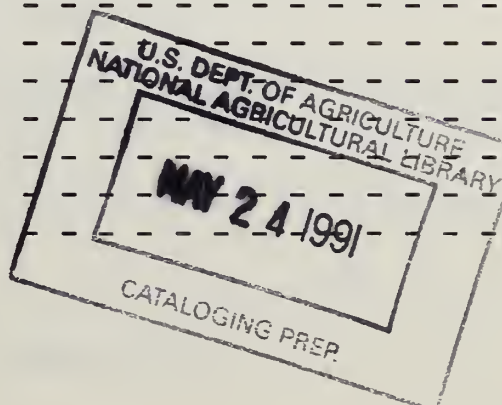
The Economic Research Service, USDA is the source of all analysis and tables not otherwise footnoted.

All data used in this report not otherwise footnoted was collected from States in the EFNEP reporting system - November 1968 - June 1974.

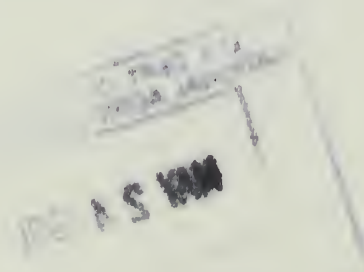
This report was compiled by Nancy B. Leidenfrost, Extension Service, USDA - July 1975.

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U.S. DEPARTMENT OF AGRICULTURE

OFFICE OF THE ASSISTANT SECRETARY FOR INTERNATIONAL AFFAIRS

GENERAL SUMMARY

A new "nutrition program" was first funded seven years ago by USDA with a \$10 million grant from Section 32 funds (November 1968). It was called the Expanded Food and Nutrition Education Program (EFNEP) and was charged: "To help families living in poverty or near poverty--especially those with young children--to acquire knowledge, skills and changes in behavior to achieve adequate diets providing normal nutrition." Congress appropriated \$30 million in FY 1970 and \$50 million in FY 1971.

The need for this new legislation was triggered by documented reports and Congressional Hearings (1967) which confirmed that in this "land of plenty" several million Americans were:

- . Living at or below the poverty level
- . Suffering from inadequate nutrition
- . Existing on insufficient balanced diets

The Extension Service of the U. S. Department of Agriculture, in cooperation with State Cooperative Extension Services, was selected to conduct the new nutritional program because it had funded pilot projects using a new concept to reach low-income and often a minority clientele. This new approach is "paraprofessional program aides" who have rapport with the families needing help on a one-to-one basis and who work under the supervision of Extension Service Home Economists. From the beginning of the program through June 1974, more than 24,000 aides have been trained and worked with 1,077,000 families. Approximately 2 million youth have participated in the EFNEP. Now about 5,300* aides are working with approximately 330,000 families annually. Each aide works with about 51 families.

Is the EFNEP "helping families acquire knowledge about nutrition and change eating habits?"

Two measures relating to nutrition, a 24-hour food recall at 6-month intervals and the naming of foods needed for good health were built into the formal reporting system of the EFNEP from the States. Here's what these measures show now:

1. Change in food consumption is greatest in the milk group--an increase from 35% to the 59% level, and in the fruit and vegetable group from 20% to 44%. These are the foods found most often deficient in the diets of homemakers entering the program.
2. At the end of one year, more than 19% of homemakers in the EFNEP were serving the nutritionally recommended allowance to their families.
3. Those serving one or more servings from all four food groups increased from 56% to 79% in 30 months.

*7,109 aides equal to 5,300 full-time equivalents.

If the EFNEP has reached about 1 million families, is there any new audience left?

Due to these facts, about 83 percent of the potential needing nutritional information are still to be reached:

- . An estimated 1.8 million families enter the poverty level each year, with an annual turnover of 33 percent.
- . As families are "graduated" from the EFNEP, new families appear due to marriage, loss of income, and potential clientele still to be reached.
- . The 1970 census reported about 5.5 million families at the poverty level and the EFNEP has reached about 1 million.
- . Eighty-five percent of the EFNEP families have annual incomes of less than \$5,000.
- . Sixty-two percent of the EFNEP enrollment is from minority groups.

The average EFNEP family is 4.7 persons and 16% of the homemakers are under 24 years of age, 63% are 25-55, and 21% are 56 and older. About 50% of the family homemakers have completed the eighth grade.

OBJECTIVE

The Expanded Food and Nutrition Education Program (EFNEP) began in November 1968 to help families -- especially those with young children, living in poverty or near poverty -- to acquire knowledge, skills, and the changed behavior necessary to achieve adequate diets in normal nutrition. Expected results of the program included:

1. Improved diets and health for the family (particularly those with young children).
2. Increased knowledge of the essentials of nutrition.
3. Increased ability to select and buy food that satisfies nutrition needs.
4. Increased ability to prepare and serve palatable meals.
5. Improved practices in food storage, safety, and sanitation.
6. Increased ability to manage resources that relate to food, including food stamps.
7. Increased participation in food assistance programs. 1/

ACCOMPLISHMENTS

Summary of Adult Program * (Table 1)

- . More than a million homemakers have been enrolled in an indepth educational training program and over two million youth reached in the EFNEP. 2/
- . Change has taken place in food consumption patterns: Less than 9 percent of families had adequate diets when they entered the program, but after one year of participation in the program 19 percent had adequate diets. Fifty-six percent of the families entering the program had inadequate to "minimum adequate servings;" that is, at least one or more serving from all four food groups. ** After 2-1/2 years of participation, 76 percent had moved from inadequate to "minimum adequate servings." 2/
- . The target audience is being reached: Eighty-five percent of the program families have annual incomes of less than \$5,000. At the end of June 1974, average income of families was estimated at \$3,500.*** The minorities account for 62 percent of participation as of the end of June 1974. Fifty percent of the families have completed eight grades or less.

Table 1 -- Program comparison and growth as of February 1969 and June 1974 reporting period - and cumulative total.

Program	As of February 1969	As of June 1974	Cumulative total June 1974
Units	513	1,282	1,315 (approx.)
Families	28,500	299,393	1,076,822
Family members	133,000	1,347,268	4,845,969
Nonprogram family contacts	34,000	88,440	3,029,189
Urban residents	53%	68%	--
Black	54%	47%	--
On welfare	29%	37%	--
On USDA food assistance	37%	55%	--
Income less than \$3,000	71%	48%	--
Aides	2,920	7,109	24,000
Full-time equivalent	2,189	5,296	--

* A more detailed description of program accomplishments follow. 2/

** Four food groups: Milk, meat, bread & cereals, and fruits & vegetables.

*** Income less than \$3,000 was identified as poor in Handbook of Demographic Information, Office of Economic Opportunity, October 1967, and was used as a guideline in establishing distribution of the funds to the States. However, poverty guidelines have changed annually and the program continues to work with the intended audience. (See CSA Guidelines on Page 22)

- . Awareness and participation in the food stamp program and school lunch program have grown and the utilization of community resources has increased: As of June 1974, 55 percent of the families were participating in the food assistance program. Eighty-three percent of children eligible for school lunch were participating. Referral systems have been established with other agencies in most sites to assist families with other problems. 2/
- . The employment of paraprofessionals: Twenty-four thousand aides, mostly from low-income families, have been employed and have received direct benefits from their training and work experience. 2/
- . Volunteer participation has contributed to program delivery and represents community involvement: Volunteers represent a significant resource. More than 152,192 different volunteers have worked in the program from July 1971 through June 1974. Over 127,000 worked exclusively with youth. A program study showed that 60 percent of the volunteers have incomes below \$4,000. 3/

Indirect Accomplishments

- . Homemakers once with the program teach others: Accounts are unmeasurable of homemakers who have become so enthused over the new information to which they have been exposed that they have become teachers of others. Many persons' lives have been changed in this "chain reaction" learning, who can never be counted. 4/ They have aspired to a higher quality of life for their families, have improved management of family finances, moved to better quality houses and improved communities, entered and graduated from college, motivated their children to stay in school, found jobs and left welfare rolls and contributed to community and school affairs. 5/
- . Many program families have progressed to become volunteer leaders, to serve on EFNEP advisory and program development committees, and to provide community leadership. Many have moved into other Extension programs where they continue to receive Extension education to meet broader family needs. This program helped families increase their knowledge and acceptance of community, social and educational services and facilities. 5/
- . Many aides have completed their high school equivalency and entered higher education programs. Seventy percent of the aides who have left the program have gone on to higher paying jobs. 6/
- . The increased knowledge of low-income families by home economists and aides enabled them to better communicate needs to civic organizations and agencies which serve low-income audiences. 5/
- . States have placed value on the program by adding over \$10.5 million to supplement and extend the work of program aides with families. 7/

- . Aide concept has been successful: The use of trained paraprofessionals to teach the hard to reach on a one-to-one basis has resulted in improved nutrition for families. 8/
- . Paraprofessionals asset to Extension Service: Program aides have become an integrated part of many Extension staffs and have created awareness and understanding to low-income family needs, resulting in expansion of programs. 5/
- . Expanded programs to minorities: EFNEP has accelerated Extension's progress in extending educational programs to the minorities in accordance with affirmative action standards. 2/

Changes in Food Consumption Practices

Many techniques or methods are available and are used by aides and program managers to determine needs of families and youth and to measure their response to the training and educational activities provided by the program. Two measures relating to nutrition, a 24-hour food recall and the naming of foods needed for good health were built into the formal reporting system associated with the program.

The greatest improvement in food consumption occurs in the first 6 months. Change in food consumption is greatest in the milk group, from 35 to 59 percent, and in the fruit and vegetable group, from 20 to 44 percent. These are foods most often deficient in the diets of homemakers entering the program (Table 2).

At the end of one year more than 19 percent of homemakers who had participated in the program had the nutritionally recommended allowance, a 2-2-4-4 diet*, compared to 9 percent at the time of program entry.

* This measure was based on the minimum number of servings suggested in the USDA's "Food for Fitness, A Daily Food Guide," Leaflet No. 424. The Daily Food Guide specifies the amount of food constituting a serving in each of the four food groups. An individual serving as reported in this study was not measured and thus may be more than, equal to, or less than the amount specified in the food guide. However, to provide a normative, operational measure for evaluating food consumption practices, it was assumed that reported servings were equivalent, on the average, to those specified in the food guide. In interpreting the findings, this assumption should be recognized.

Table 2--Percent of program family homemakers consuming food in four major food groups by number of servings, 24-hour food recall at 6-month intervals, for all families entering program through June 1974.

Servings	Homemakers reporting by food reading when at:						
	Entrance	6 months	12 months	18 months	24 months	30 months	36 and longer
----- Percent -----							
Homemakers reporting servings							
2 or more of milk.....	35	47	52	56	58	60	56
2 or more of meat	76	81	83	84	86	86	84
4 or more of fruit and vegetables	20	29	34	38	40	44	44
4 or more of bread and cereal ..	39	47	51	54	56	57	59
1 or more from each food group..	56	69	73	76	78	79	76
2 or more each of milk and meat and 4 each of fruit/vegetables and bread/cereal	9	15	19	21	23	25	23
Average monthly income (dollars)	249	257	260	260	261	263	277
Average monthly expenditure (dollars)	83	86	87	87	87	87	96
Percent for food	34	33	33	33	33	33	35

Effectiveness of the program in changing food consumption and improved nutrition is clearly indicated by the increased proportion of homemakers who include "minimum adequate servings" of each food group in their diet after entering the program. Those including one or more servings from all four food groups increased from 56 to 79 percent in 30 months.

An examination of food reading taken during January-June 1974 shows the proportion of families at various levels of consumption as well as changes associated with participation in the program for varying periods of time (Table 3). Homemakers receiving more visits from program aides (a measure of intensity of program instruction), increased their consumption of foods in the milk and fruit and vegetable groups more than homemakers receiving fewer visits. 8/

The food behavior changes that occurred in the milk and fruit and vegetable groups during the first year were greater among homemakers who received home visits as compared with those who only attended meetings. 10/

The proportion of homemakers who enter the program with no servings of fruits and vegetables and increase to "adequate" servings gives evidence that continuing participation in the program has produced positive results.

In the Florida and Georgia Study consumption in the fruit and vegetable group represented an improvement of approximately 40 percent after 2 years of participation. 11/

Table 3 --Percent of homemakers consuming food in four major food groups by number of servings and length of participation in EFNEP, January-June 1974.

Servings	Percent of homemakers by month of participation <u>1/</u>						
	Entrance	6	12	18	24	30	36 and over
Milk							
None	35	19	16	15	13	13	14
1	34	32	29	30	27	28	28
2 or more	31	49	55	55	60	60	57
Meat							
None	7	2	2	2	2	2	2
1	23	16	14	16	12	12	13
2 or more	70	82	84	82	87	82	85
Fruit/vegetables							
None	17	7	6	6	4	4	4
1-2	48	39	32	34	30	30	30
3	18	23	24	24	24	22	23
4 or more	17	31	37	36	42	44	42
Bread/cereal							
None	6	1	1	1	1	1	1
1-2	30	21	18	17	14	17	15
3	25	26	25	24	23	23	24
4 or more	39	51	55	57	62	58	60
1 or more of each food group.....	54	71	75	77	81	78	77
2 or more each of milk and meat and 4 or more each of fruit/vegetables and bread/cereals.....	6	16	20	21	25	25	22

Totals may not add to 100 percent because of rounding.

1/ Each food reading represents a separate and different group of homemakers.

9/

An important reason for higher percentages of homemakers not achieving "adequate" diets within specified periods of time appears to be their limited income and inability to buy the food needed for an adequate diet.

Data on all homemakers show that most progress is realized during the first 18 months of participation. This may mean that aides work more intensely with families during the first 18 months and/or that homemakers have potential for greater progress when they first enter the program.

The Synectics Corporation observed that the lesson content and the amount of time an aide should spend with a family will vary greatly from one homemaker and her family to another. ^{12/} Ultimately, each family must be dealt with as an individual case for which allocation of effort must be judged on its own merits.

Change in Level of Nutrition Knowledge

A major thrust of the program is to improve and expand participating families' knowledge of food and nutrition. As an indicator of the participants' level of awareness and as a measure of program effectiveness, entering the program and at subsequent 6-month intervals, homemakers are asked to "name what food and drink they think people should have to keep healthy." Responses to this question are shown in Table 4.

The effectiveness of the aides in teaching about a balanced diet and specific foods necessary for good health is shown by the homemakers' ability to name the food groups.

Table 4 -- Response of family homemakers to the question: What food and drink do you think people should have to keep healthy? by percent naming foods in four major food groups at 6-month intervals of participation. ^{1/}

Food group items named ^{2/}	Homemakers naming by interval of participation					
	At Entrance	6 months	12 months	18 months	24 months	30 months
Milk	72	82	85	88	90	90
Meat	78	86	88	91	93	93
Fruit/vegetables		86	89	91	93	96
Bread/and cereal	63	74	79	84	86	88
All four groups	49	65	72	77	80	82

^{1/} Due to modification in the program information system, responses to this question were not reported after March 1972.

^{2/} One or more items could be named in a food group; however, only one item was necessary for any food group to be counted.

9/

Participation in USDA Food Assistance Program

As of June 1974, 55 percent of the EFNEP families were participating in food assistance programs compared to 38 percent in June 1969. The sharp decline of participation in donated food and an increased participation in the food stamp program during 1973 reflects the phasing out of donated food and its replacement by food stamps. In a study conducted by ERS, EFNEP homemakers ineligible for food assistance programs on the average were younger and better educated. ^{13/}

As of June 1974, 83 percent of program family children eligible for school lunch were participants.

Youth Program

Although youths had been enrolled in the program before, a more concentrated effort was made when the \$7.5 million was designated by Congress for employing professionals to provide leadership to recruit and train volunteers to reach youth through 4-H nutrition programs in depressed city areas. 1/ The youth program objectives are to:

- . Provide education for youth in the principles of nutrition and diets, and in the acquisition and use of foods.
- . Contribute to the personal development of disadvantaged urban youth through improved nutrition.
- . Contribute to the improvement of diets and nutrition of families by means of educational programs for youth.

Results of Studies

In the North Carolina study significant changes occurred in nutrition 14/ knowledge and nutrition attitudes (but not in food intake) among youth taught from the EFNEP Lesson Series. 15/

In this study, family characteristics of income, age of homemaker, and ethnic background were significantly related to the nutrition behavior change that occurred in the disadvantaged youth. 14/

The youth from families where the mother was 25 to 35 years of age had a greater degree of nutrition behavior change than when the homemaker was in any other age category.

An evaluation of the Mulligan Stew 4-H television series revealed that the series had a positive impact on youth. After participating in the TV series, youth demonstrate more knowledge about nutrition, are more likely to engage in nutrition-related activities, and exhibit a dramatic increase in their awareness of 4-H. Over 2,500,000 youth participated in the Mulligan Stew series in FY 74. 16/

Profile by Length of Time in Program

Families are continually being enrolled in the program and remain for varying lengths of time. Based on program data for June 1974, an average aide will work with a composite of families ranging from new enrollees to those who have been in the program for more than three years. Consequently at any given time, families in the program may reflect a wide and diverse range in nutrition knowledge, skills, and food consumption practices. The heterogeneous nature of program families would appear to be a major factor in determining the number of families an aide can work with at a given time and may be a deterrent to group teaching.

Program Exit

For all families who were enrolled in the program through June 1974 and for whom an initial food recall was taken, 37 percent left the program prior to a second food reading and therefore participated in the program for less than 6 months. Based on experience to date, nearly 84 percent of all program families leave the program before the fifth food reading or before completing 24 months of participation. Although more than 94 percent of all program families leave the program before the seventh food reading, or with less than 3 years' participation, the number of families remaining in the program for 3 years or longer tends to grow (Table 5.).

Table 5 -- Proportion of families leaving program by food reading and length of participation 1/.

Prior to food reading	Months in program	Percent of families leaving	
		Accumulative <u>2/</u>	By interval <u>3/</u>
2	Less than 6	36.9	36.9
3	Less than 12	59.7	22.8
4	Less than 18	74.2	14.5
5	Less than 24	83.5	9.3
6	Less than 30	90.6	7.1
7	Less than 36	94.3	3.7

1/ Based on total number of families entering program and with an initial food reading through June 1974.

2/ Accumulated over previous time periods.

3/ Reflects proportion of families leaving between time periods; that is, 22.8 percent left between the second and third food reading or with over 6 months but less than 12 months participation.

Federal Cost Per Program Family ^{17 /}

Estimated costs of conducting the adult phase of EFNEP can assist its budgeting, assessment and efficiency of operation. Annual Federal expenditures were approximately \$50 million for FY 71 and FY 74, the two years covered by this analysis. However, inflation and cost of operation reduced the size of the program from 9,582 aides in June FY 71 to 7,109 aides in June 1974. Federal "cost-to-handle" is expressed as Federal cost per enrolled program family per month. Cost-to-handle per month was calculated within a random sample of twenty States. The following algorithm was used for each States, first using FY 71 data, and then FY 74 data:

$$\frac{\text{Total Federal Expenditures for adult phase}}{\text{mean number of program families enrolled}} = 12^*$$

Over the 20 States sampled, also including their share of Federal administrative funds, the calculated Federal cost per program family per months is \$8.71 for July 1, 1970-June 30, 1971, and \$9.10 for July 1, 1973-June 30, 1974 (Table 6). Standard deviation of cost per program family per month is \$6.10 and \$5.40 for FY 71 and 74 respectively, with considerable skewness toward costs higher than the mean cost.

It should be noted that Extension cost-to-handle is reduced by inputs to the program by volunteer leaders in the adult phase of EFNEP. Time expended by volunteer leaders is approximately 8 percent that of aide time.

Table 6 -- Mean federal cost per program family for 6-month intervals and for median length of participation, FY 1971 and FY 1974.

Fiscal Year	Months in the program						
	6	9½	12	18	24	30	36
	----- Dollars -----						
1971	52.26	80.56	104.52	156.78	209.04	261.30	313.56
1974	54.60	84.17	109.20	163.80	218.40	273.00	327.60

* This algorithm is based on two assumptions: (1) staff time allotted to contacting nonprogram families can be properly charged against work with program families, since the end result of contacts should be for recruiting families into the program; (2) Extension cost-to-handle (planning, developing materials, equipment, recruitment and training of paid and volunteer staff, recruitment of families and program delivery, etc.) may be prorated equally over length of time of family enrollment in the program.

THE CONTINUING NEED

The future of EFNEP needs to be examined from these points of view:

...that the original nutrition problem and need for nutrition education still exist (see Ten State Nutrition Survey) 18/

...that an efficient and effective delivery system to meet these needs and problems has been evolved, and 8/

...that over 80 percent of the original problem has yet to be attacked. 19/

The continued need and potential of the Expanded Food and Nutrition Program may best be described in the excerpts listed below from a speech by a University Chancellor; a letter from a District Court Judge.

At a recent meeting of the wives of North Carolina legislators, State officials, and judges, Dr. John T. Caldwell, N.C. State University Chancellor, made these comments:

"...The Expanded Food and Nutrition Education Program sponsored by the University Extension Service, has transformed the homes of many poor North Carolinians. Low income people are not eating well....and the Extension Service is teaching them about nutrition and how to spend their limited resources for nutritious foods....to make a difference in people's lives..."

In a recent letter from the Honorable Wade B. Matheny, North Carolina District Court Judge, General Court of Justice, he commented about EFNEP in this manner:

"...For the past several years, I have been familiar with the operation of this important program here in North Carolina. I know of no program more necessary and important than this one at a time of serious unemployment....and rampant inflation, and the high cost of food.... The national defense and security of this country depends upon the strong health and security of our people. Too many of our people both young and old do not get a balanced and nutritious diet...."

Table 7-- Potential number of families and the percent of potential enrolled in EFNEP.

Based on 1970 Census and June 30, 1974 Program Printout

Region	State	Based on Counties in which EFNEP is Operating			Based Upon Total Family Participation Potential for State	
		Progress Families Reached	Potential Census Pov. Lev.	Percent Reached	Census Pov. Lev.	Percent Reached
NE	Connecticut	3,606	36,738	9.8	40,849	8.8
	Delaware	2,000	11,274	17.7	11,274	17.7
	Maine	14,063	21,445	65.6	25,622	54.9
	Maryland	8,829	60,464	14.6	74,601	11.8
	Massachusetts	12,718	84,335	15.1	86,691	14.7
	New Hampshire	2,994	8,653	34.6	12,243	24.5
	New Jersey	12,331	97,023	12.7	112,637	10.9
	New York	33,569	353,436	9.5	391,098	8.6
	Pennsylvania	33,036	208,286	15.9	236,993	13.9
	Rhode Island	3,590	20,041	17.9	20,041	17.9
	Vermont	2,777	8,687	32.0	8,793	31.6
	West Virginia	15,207	81,326	18.7	81,697	18.6
	Region Total	144,720	991,708	14.6	1,102,539	13.1
NC	Illinois	32,543	172,151	18.9	213,422	15.2
	Indiana	18,176	82,474	22.0	97,545	18.6
	Iowa	13,068	27,757	47.0	63,956	20.4
	Kansas	9,233	25,331	36.4	56,356	16.4
	Michigan	17,305	120,239	14.4	159,956	10.8
	Minnesota	9,459	40,884	23.1	75,923	12.5
	Missouri	25,111	92,532	27.1	138,795	18.1
	Nebraska	6,973	18,136	38.4	37,868	18.4
	North Dakota	3,663	10,251	35.7	18,332	20.0
	Ohio	24,192	178,751	13.5	204,749	11.8
	South Dakota	5,644	9,393	60.1	23,887	23.6
	Wisconsin	13,634	47,036	29.0	79,683	17.1
	Region Total	179,001	824,935	21.6	1,170,472	15.3
S	Alabama	41,058	180,666	22.7	180,666	22.7
	Arkansas	29,579	65,247	45.3	114,945	25.7
	Florida	28,427	184,479	15.4	229,111	12.4
	Georgia	40,533	90,814	44.6	192,125	21.1
	Kentucky	26,363	153,361	17.1	158,779	16.6
	Louisiana	48,425	146,072	33.2	187,955	25.8
	Mississippi	38,886	154,012	25.2	154,254	25.2
	N. Carolina	24,352	197,840	12.3	211,082	11.5
	Oklahoma	14,955	44,918	33.2	102,210	14.6
	S. Carolina	21,764	43,323	50.2	119,308	18.2
	Tennessee	34,767	97,012	35.8	186,326	18.7
	Texas	114,040	270,767	42.1	412,507	27.6
	Virginia	21,031	70,103	30.0	143,005	14.7
	Region Total	484,180	1,698,614	28.5	2,392,273	20.2
W	Alaska	2,129	2,719	78.3	6,199	34.3
	Arizona	7,280	44,918	16.2	50,359	14.5
	California	56,681	324,220	17.5	421,200	13.5
	Colorado	3,043	28,657	10.6	49,850	6.1
	Hawaii	2,460	13,046	18.9	13,046	18.9
	Idaho	7,280	13,637	53.4	19,504	37.3
	Montana	3,588	7,118	50.4	17,821	20.1
	Nevada	4,164	6,989	59.6	8,641	48.2
	New Mexico	8,393	24,236	34.6	44,906	18.7
	Oregon	8,589	27,004	31.8	46,456	18.5
	Utah	6,440	19,422	33.2	22,802	28.2
	Washington	15,338	47,786	32.1	65,250	23.5
	Wyoming	1,739	3,319	52.4	7,841	22.2
	Region Total	127,124	563,071	22.6	773,875	16.4
National Grand Total		<u>935,025</u>	<u>4,078,328</u>	<u>22.9</u>	<u>5,439,159</u>	<u>17.2</u>

Footnote: Families reached does not include those in Puerto Rico and Virgin Islands because Census data was not available. An additional 43,686 families were reached in these two geographical areas.

Potential Audience

The 1970 Census identifies about 5-1/2 million families in poverty.²⁰ / Although this number is rather constant, there is a 33 percent turnover annually, adding 1.8 million families per year to the ranks of the poor. Nationwide more than a million families have been taught through EFNEP which falls far short of reaching the annual poverty turnover.

Percent of Potential Enrolled in EFNEP in Accordance with 1970 Census

From November 1968 to June 1974 a number of families equivalent to 22.9 percent of the poverty audience reported in the 1970 Census has been reached in 1,226 units where the EFNEP program is now operating.* This is equivalent to 17.2 percent of the total poverty audiences in the U.S.

The percentage varies from one region of the country to another. The percentage of families which have been reached, based on the June 30, 1974 program printout and the number of poverty level families in 1970 Census is reported in Table 7 .

Under the present budget an average of 330,000 families has been enrolled annually in the program. This doesn't mean that all families are new to the program annually. The 330,000 families represent different stages of progress, i.e., families entering the program and families that have been in the program 12, 18, 24, or 30 more months.

Resources

Funding has not kept pace with the increased costs of program operation. In the majority of states, full-time aides now receive, for the most part, the same benefits that professional Extension workers receive. In some states, aides who work on a part-time (30 hours or more) basis are receiving similar benefits. Hourly wages range from the minimum to more than \$5.00. Consequently, the increased program operation costs have brought some reduction in the number of paraprofessional positions.

The size of the program has been decreased in order to maintain and pay for increasing costs. ²/ Further decreases are anticipated in the level of the program because of inflation and increased costs of operation. If funds are not made available to counteract inflation, the only solution is to reduce the program. With the declining purchasing power of the funds, it becomes more important to manage the program to bring the

*EFNEP assists program aides and families to improve their nutritional health and aspirations and to move above the poverty level. Therefore, many of the families which have been reached cannot be counted as a percentage of the number of families which are below the poverty level during a given year. New families are added to the poverty level numbers while other families constantly leave this income level.

greatest impact of resources to bear on the problem. This would seem to indicate emphasizing use of educational materials now developed on nutrition and nutrition related subject matter areas.

Increase Effectiveness and Efficiency Increase Cost/Dropped Units

Efforts will continue to improve efficiency and maintain the effectiveness of the EFNEP. Increased costs have made it necessary to phase out some units in most states. Careful analysis of the program and program results are made by a state before a decision is made to phase out a unit. A program review instrument has been developed by ES to assist states in this process. 21/ Extension Service randomly selects states in which program and financial reviews are conducted (some 21 reviews have been conducted in the last two years). Results from these state and county reviews have assisted states in identifying program concerns and in strengthening their programs.

Progression Model

Aggregate data indicate that the greatest improvement in homemakers' food consumption occurs during the early months in the program and while there is subsequent progress, it is at a much lower rate. The lower rate of progress after the first year may be an indication that a greater program depth is needed to result in a higher percentage of change after the first year. Because of this slower growth in the knowledge/practice pattern after the first year, a progression tool has been developed and is currently being tested. 22/ The tool will improve the cost to handle operation of EFNEP by providing means of using objective information about family status of learning as a basis for decisions about allocations of the aides' teaching time. The tool will be made available to states in 1976.

The progression tool will assist the paraprofessional to more effectively and continuously identify the nutrition educational level of each program homemaker. The tool will help the aide to plan learning experiences with the homemaker to bring about the desired level of nutritional knowledge and skill, at which time graduation* from the program will provide opportunity for a new homemaker to enter the program. This will be of major value in progressing families through the program at a better planned and more rapid rate than the past. It is hoped that this tool will make it possible for the program to educate a greater number of homemakers in a given period of time.

*Graduation: Leaving the program because they have achieved the program objectives.

Program Potential

Recently sixteen states submitted responses related to the continued need and program potential. All states requested continuing and expanded efforts to reach higher numbers of families with educational information on food and nutrition. Two states also identified consumer education, financial management information, and health information, and one state, child care and development as needed by EFNEP families. 23/

Considering the responses from these 16 states, they indicate support of continuing the present EFNEP educational approach to teaching the potential audience "knowledge and skills in nutrition." The present guidelines do provide for consumer education which has been a part of the EFNEP since its inception.

Since the development of educational materials from four pilot projects on consumer education in 1972, the change from donated food to food stamps, and increased inflation, greater emphasis has been given to money management and consumer education in EFNEP. 24/

The future potential and educational opportunities which this program provides are unlimited. Eighty percent of the poverty audience remains to be reached. 19/ The present delivery system has demonstrated its effectiveness in bringing about improved diets and improved quality of family living. 8/ A considerable challenge presents itself to educators to assist low-income families attain a nutritious and healthful diet.

WHY AN EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM?

THE NEED

Although America has always been considered the "land of plenty," exporting food and feed grains, documented reports from respected government agencies have disclosed these disturbing facts:

- . Several million Americans are living at or below the poverty level.
- . Children and adults in these low-income families are suffering from inadequate nutrition.
- . Inadequate nutrition in many instances exists not because food is lacking, but because of an insufficiently balanced diet.
- . Families of all income levels often suffer from lack of nutritious diets because they fail to recognize the importance of it, or they were never informed about it.

HOW DO WE KNOW?

These facts are found in the following studies:

1. "The People Left Behind" - A Report by the President's National Advisory Commission on Rural Poverty, 1967.
2. The 1965 Nationwide Food Consumption Survey.
3. The Nutritional and Dietary Intake Studies of 1957-67.
4. Nutritive Quality of Diets USA - A Report to the Committee on Agriculture, U.S. House of Representatives prepared by USDA, 1968.
5. The 1967 Congressional hearings on the subject.

PROGRAM DEVELOPMENT

Extension Service has always worked with rural disadvantaged families, but in the 60's decisions were made to reach them with more structured programs.

There are two important considerations: (a) who should go out to reach the low-income audience and (b) what methods should be used?

The answers to these questions came out of Pilot Projects 25/ funded by Extension Service, USDA in several States. The results of the pilot studies and a concurrent nationwide concern among the affluent helped to launch the Expanded Food and Nutrition Education Program in 1968. That year the USDA made available \$10 million of Section 32 funds to initiate what is now commonly called "EFNEP."

The Paraprofessional Aide Concept

To bring such a program to low-income families, paraprofessional program aides* were employed in 513 units** in 1969 and grew to about 1,300 units in 1973. As of June 1974, there were 1,282 units. States were encouraged by Extension Service, USDA, to hire indigenous paraprofessionals. The rapport needed to communicate the nutrition message to indigenous families is a skill that comes naturally to people in the same circumstances.

The program aide receives on-the-job training and is supervised by an Extension home economist. The aide is responsible for conducting a nutrition education program with low-income families. She works with families on a one-to-one basis, in small cluster groups (2 or 3 individuals), or in larger groups according to the homemaker's progress.

The Paraprofessional Aide's Role

The program aide:

- . Recruits and enrolls low-income adults in EFNEP.
- . Identifies food and nutrition-related needs of the homemaker and is able to plan educational experiences related to homemaker's need.
- . Teaches nutrition and nutrition-related subjects to low-income homemakers individually and/or in groups.
- . Evaluates progress of homemaker and helps determine when homemaker is ready for progression***.
- . Identifies and recruits potential volunteers to assist in the progression of homemakers within the EFNEP.

*Extension paraprofessionals (or program aides) are persons other than clerical and secretarial employed to assist and/or extend the efforts of Extension program professionals through supervision and/or direct contact with clientele in the conduct of educational programs, projectives, activities, etc.

**Unit - A working-reporting area determined by the State. This area can be one county, part of a county, or several counties and/or part of a city. The 1,282 units represent 1,478 program sites.

***Progression-A structured framework of stages by which program families can be characterized and subsequently moved forward.

- . Identifies and recruits potential volunteers from program families to assist in 4-H EFNEP.
- . Refers families to other agencies and organizations.^{1/}

What They Teach

After recruiting and enrolling the program family* the program aide identifies the food and nutrition related needs of the homemaker and then plans a learning experience related to each homemaker's need in the following areas:

- . Food and nutrition is the principal subject for both the adult and the 4-H phases.
- . Subject-matter areas closely related to nutrition and considered to be appropriate for teaching are:
- . Financial management as it relates to food, including the essential components of budgeting and planning which must be understood before they can be applied successfully to food.
- . Use and care of kitchen and other equipment considered necessary for food preparation, storage, and utilization.
- . Health and sanitation practices (including food safety).
- . Personal development through improved diets and nutrition (normal nutrition).
- . Information on services available to the family and referral of the family to these services.
- . Family relations as they affect diets and nutrition.
- . Gardening and food production.
- . Food preservation.
- . Meal planning and food selection, preparation, and buying.^{1/}

*A family being worked with is classified as a program family when the form, "Family Record--A. Description" (social and demographic profile of family) has been completed through contact with a homemaker or the person who usually prepares the food for the family in the home or in the group. A few visits are usually necessary to develop rapport, confidence, and sufficient commitment of the family to enroll in the program.

When the program family is enrolled, and subsequently at 6-month intervals, 24-hour dietary recalls are taken on the homemaker. This information identifies changes made in the family's diet during her participation. Every 6 months information on family income and food expenditure is updated. These data lend great value in identifying program family needs, capabilities, and resources. Perhaps the most important use of this information is by the program aide and her supervisor in providing the most effective and efficient learning experiences for the family.

ADULT PROGRAM AUDIENCE

Family Participation

Until 1972 the program expanded rapidly, adding new families through establishment of new program units and expansion of outreach within existing units. The number of aides who provide the contact with families peaked in June 1971 and subsequently declined; this contributed to the decline in number of new program families added. (Table 8)

Table 8 -- Family participation in EFNEP by periods.

Period	Number of Program Families				Nonprogram families contacted during last month of period
	End of Period	During Period		Cumulative	
		Added	Leaving		
-----Thousand-----					
Through June 1969	122	131	9	131	29
July-December 1969	160	94	56	225	37
January-June 1970	237	123	46	348	61
July-December 1970	257	78	58	426	64
January-June 1971	338	143	62	529	106
July-December 1971	351	92	79	661	103
January-June 1972	361	93	84	754	129
July-December 1972	334	79	105	833	82
January-June 1973	320	89	103	917	86
July-December 1973	306	75	90	980	95
January-June 1974	299	79	86	1,077	88

9/

Income of Program Participants

The portion of families with income under \$1,000 annually has steadily declined and the proportion of \$3,000 and over has risen. General rise in income and inflation appear to be the factors that have contributed to the increased portion of families in higher income groups. The proportion of families in the \$1,000-\$2,999 income class had remained stable through the June 1974 reporting period. Despite the increased proportion of families with higher incomes, the program's participants remain basically low-income families.

At the end of June 1974, average income of program families was estimated at \$3,500. Currently, it is estimated that 85 percent of the program

families have annual incomes of less than \$5,000* with the size of program families averaging about 4.5 persons (Table 9).

Table 9 -- Distribution of program families by annual family income, by selected months.

Month	Income			
	Under \$1,000	\$1,000- 2,999	\$3,000 4,999	\$5,000 and over
----- Percent of families -----				
March 1969	24	47	23	6
September 1969	19	46	27	8
March 1970	16	47	28	9
September 1970	15	47	29	9
March 1971	14	47	30	9
September 1971	13	47	30	10
March 1972	12	47	31	10
December 1972	10	47	32	11
June 1973	7	48	33	12
December 1973	7	46	35	12
June 1974	6	43	36	15

9 /

Food Expenditures

Program families spend close to 33 percent of their incomes on food. Monthly food expenditure, exclusive of value of any food assistance, averages between \$60 and \$90, and monthly income between \$240 and \$260.

Ethnic Composition of EFNEP Families

Since EFNEP is oriented to low-income families, its effectiveness in enrolling and working with such groups can be used as a measure of success.

At the end of March 1969, over 70 percent of the program families were from minority groups. At the end of June 1974, minority groups accounted for 62 percent of the participation in EFNEP (Table 10).

*Community Services Administration (formerly OEO), July 1975, Income poverty guidelines for a family of four are \$5,050 nonfarm and \$4,300 farm in the U. S. (Alaska \$6,310 nonfarm and \$5,360 farm, and Hawaii \$5,810 nonfarm and \$4,940 farm).

Table 10 -- Distribution of program families by ethnic background.

Month	Ethnic group <u>1/</u>			
	Black	White	Spanish Surname	American Indian
	----- Percent of families <u>2/</u> -----			
March 1969	54	29	14	2
September 1969	50	32	15	2
March 1970	48	33	16	2
September 1970	47	34	17	2
March 1971	46	34	18	2
September 1971	47	34	17	1
March 1972	46	35	17	1
December 1972	46	36	16	1
June 1973	47	37	14	1
December 1973	47	37	14	1
June 1974	48	37	13	1

1/ Families of Oriental extraction and families for whom ethnic classification was not made account for less than 1 percent in all periods.

2/ Due to rounding percentages, does not always equal 100.

9/

Where Families Live

In March 1969, approximately 53 percent of the program families lived in urban (population over 2,500) areas. This increased to over 85 percent in September 1969 and held around this level through March 1972. In the revised reporting system, based on a representative sample of program units, urban representation rose to around 62 percent and has remained about this level since December 1972. Since the beginning of the program, between 90 to 93 percent of the program families have been nonfarm residents.

By the Extension Service, USDA revised definition of rural* the proportion of urban families is about 30 percent.

Welfare Participation

At the end of March 1969, around 29 percent of the program families were on welfare. This gradually reached 38 percent in late 1973 and dropped back to 36 percent in June 1974. The encouragement of participation in available welfare assistance is not a direct objective of EFNEP, but efforts are made to inform families of the economic and community benefits available to them.

*USDA approved guideline for rural is people living outside cities with population of 50,000 or over.

Size of Families

EFNEP families are large, averaging from 4.5 to 4.9 persons. Fifty-two to 58 percent of program family members are under 19 years of age. The proportion of children under 19 who attend school has fluctuated between 65 and 70 percent.

Age and Education of Homemakers

December 1973 data indicates that 16 percent of the family homemakers are under 24 years of age, 63 percent are 25-55 years of age, and about 21 percent are 56 and older.

From the beginning of the program through March 1972, 32 to 37 percent of the family homemakers had less than an eighth grade education. Starting in July 1972, there was a change to "eight grades or less" as the basis for reporting educational level of homemakers. Under this new standard and based on sample rather than population data, around 49-50 percent of family homemakers have completed eight grades or less of formal education.

YOUTH PROGRAM AUDIENCE

4-H EFNEP Participation

In most sites both youth and adult programs are being conducted. In 22 other sites, mainly in the inner cities, only the youth program is being conducted.

Program information on the number of youths participating was first reported in June 1970. The number of youth reached a peak in the summer of June 1972. Since that time there has been a decline in the number of youth worked with at a given time. The number of youth participating varies markedly from month to month with participation highest in the summer and lowest in winter months (Table 11).

Table 11 -- Youth in EFNEP 4-H type activities at end of selected months.

Month	Number of youth from		
	Program families	Nonprogram families	Total
June 1970	56,387	54,846	111,233
December 1970	55,742	68,806	124,546
June 1971	93,679	107,581	201,260
December 1971	89,096	102,111	191,207
June 1972	111,899	152,975	264,874
December 1972	76,894	113,088	189,982
June 1973	99,959	125,354	225,313
December 1973	76,310	113,731	190,041
June 1974	99,355	122,630	221,985

Of the over 111,000 youth in the program during June 1970 more than one-half were from families that participated in EFNEP. However, since June 1970 youth from nonprogram families have been in a majority ranging up to almost 60 percent during a given month.

Data from the revised reporting system show that during the period July 1971 - June 1974 about two million different youth participated in the program of which nearly 1.4 million were from nonprogram families and only 0.6 from program families. The wide differences in number of program family and nonprogram family youth during a given month and over longer periods of time indicate that the turnover rate among nonprogram youth is substantially higher than for youth from program families, or that nonprogram youth have a greater tendency to participate in short-term activities.

Racial and Ethnic Composition

A majority of the youth participating in EFNEP youth activities are from minority ethnic groups. Although data on ethnic composition are available only since July 1972, there is an indication that the racial mix varies seasonally.

Age and Sex

Based on unweighted sample data, boys account for about 40 percent of the youth being reached. Well over one-half of the youth being reached are in the 9 through 13 age range (Table 12). Around 28 percent are under 9 years of age, and between 11 to 14 percent are 14 and over. The data suggest that the proportion of children under 9 years of age is declining.

Table 12 -- Age distribution of boys and girls in youth phase of EFNEP by periods.

Sex and age group	July-Dec. 1972	July 1972-June 1973	July-Dec. 1973	Jan.-June 1974
<u>Girls</u>				
Under 9	28	26	25	26
9-13	56	59	57	60
14 and over	16	15	18	14
<u>Boys</u>				
Under 9	34	31	29	29
9-13	54	58	56	60
14 and over	12	11	15	11

PROGRAM RESOURCES

The human resource most directly involved in contacts with EFNEP families is the program aide. Large numbers of volunteers are also involved and their principal focus is the youth phase. At the professional level, the unit supervising home economist and youth agent represent the primary or direct program inputs.

Supporting the unit staff at the land-grant institution is a nutritionist (devoting a percentage of her time to this program and quite often not paid from EFNEP funds) and a program coordinator.

Program Aides

From the beginning of the program through June 1974, an accumulative total of more than 24 thousand aides has been employed, trained, and worked with families for some length of time. As the program expanded, more aides were employed, with a high reached in mid-1971 of around 9,600 aides. Since 1971 there has been a reduction in the number of aides employed, with only 7,109 reported in June 1974 equal to 5,295 full-time equivalents. The cost factor is the main reason contributing to the reduction in aides.

Families per FTE Aide

Employment of aides generally ranges from quarter to full-time. On the average, however, aides work around three-quarters of full-time, or a total of 100 aides working in the program would equal about 75 aides on a full-time (40 hour week) basis (Table 13).

Table 13 -- Aides employed and program families per aide by months.

Month	Number of aides employed		Number of program families per FTE aide
	Total	Full-time equivalent	
June 1969	4,844	3,586	35.1
December 1969	5,242	3,836	41.7
June 1970	7,022	5,157	46.0
December 1970	7,006	5,302	48.5
June 1971	9,582	7,531	44.9
December 1971	9,045	6,925	50.8
June 1972	8,936	6,862	52.6
December 1972	8,651	6,460	51.7
June 1973	8,080	6,394	50.1
December 1973	7,617	5,793	52.8
June 1974	7,109	5,296	56.5

Since 1971 the average number of families per full-time equivalent aide has held at 51 families. Among States the number of families per full-time equivalent ranged from 16 to 151 families in June 1974.

Aide Performance

A more accurate indicator of the work performed by aides is the number of families contacted and worked with during a given period of time (Table 14). During the early life of EFNEP, 72 to 75 percent of the families were contacted during any given month. With a sample of program units as a data base, starting in December 1972 the percent of program families contacted rose, reaching 83 percent in June 1973.

Table 14 -- Families contacted by aides during selected months.

Month	Percent of program families	Number contacted per full-time equivalent aide		
		Program	Nonprogram	Total
June 1969	82.0	29.7	8.5	38.3
December 1969	75.4	31.5	9.7	41.2
June 1970	74.4	34.2	11.8	46.0
December 1970	73.8	35.8	12.0	47.8
June 1971	75.5	33.9	14.1	48.0
December 1971	72.2	36.7	14.9	51.6
June 1972	72.7	38.2	18.8	47.0
December 1972	77.2	39.9	12.7	52.6
June 1973	82.5	41.3	13.5	54.8
December 1973	76.3	40.2	16.5	56.7

Between 20 to 25 percent of an aide's time may be devoted to nonprogram families. About 17 percent of families are worked with in groups as a means of increasing the number of families per aide.

Racial or Ethnic Composition

The racial or ethnic composition of aides has changed slightly over the life of program showing a similarity to that of program families. However, the racial profile of aides has been almost stable since 1971 (Table 15).

Table 15 -- Ethnic or racial background of aides by selected months.

Month	Black	White	Spanish Surname	American Indian	Other
March 1969	47	40	11	1	1
September 1969	48	39	11	2	1
March 1970	43	43	11	2	1
September 1970	42	44	11	2	1
March 1971	39	46	12	2	1
September 1971	39	48	11	2	1
March 1972	38	47	12	2	1
December 1972	40	47	12	2	1
June 1973	40	47	11	2	1
December 1973	40	47	11	2	1
June 1974	41	46	11	2	1

Totals may not add to 100 percent because of rounding.

Volunteers

In terms of numbers, volunteers represent a significant resource of the EFNEP. From July 1, 1971, through June 1974 more than 152,194 different volunteers had assisted in conducting the program. Over 136,000 of these were involved in the youth phase of the program, with over 127,000 working exclusively with youth. While the number of volunteers who work only with adults (3,704) or with both adults and youth (2,494), the total of 6,198 volunteers who worked with families during June 1974 becomes potentially more significant if viewed alongside the 7,109 aides who were in the program at the end of the month.

It appears that the number of volunteers participating is seasonal with larger numbers participating in the summer months when youth participation is highest (Table 15).

Table 16 -- Number of volunteers involved in EFNEP, by month.

Month	Total	Working with		
		Youth	Adults	Both
December 1972	19,456	13,680	3,384	2,392
June 1973	21,515	15,724	3,123	2,668
December 1973	18,213	11,812	3,894	2,507
June 1974	21,413	15,215	3,704	2,494

Contributions of Volunteers

The EFNEP reporting system does not provide information on the amount of time spent or the services performed by volunteers. However, a survey of EFNEP units with youth programs indicates that over a 6-month period each volunteer devoted 20 hours per week. Volunteers either conducted or assisted in the presentation or teaching of nutrition lessons or concepts. Nearly 45 percent of the program units reported that the volunteers' role was primarily to organize and make arrangements for youth meetings. About 90 percent of the volunteers were female, and 30 percent were program homemakers.^{3/}

Racial or Ethnic Composition

A majority or about 54 percent of the volunteers who have worked in EFNEP are white. Since 1972 the proportion of black volunteers has ranged from 36 to 38 percent, with Spanish surname accounting for 6-7 percent.

Funds

In early 1969, the program operated on the premise that the funds were to be used primarily for employing paraprofessionals, not professional staff. At that time, the professional input amounted to some 600 professionals giving guidance and assistance.

In 1970 Congress allocated \$30 million for the program operation (\$28,560,000 for State operation). Seven and one-half million of the \$30 million was identified for the employment of professionals to conduct youth nutrition programs in inner cities.

By 1971, Congress had provided an additional \$20 million, making a total of \$50 million, (\$48,560,000 for States) for program operation.

APPENDIX B

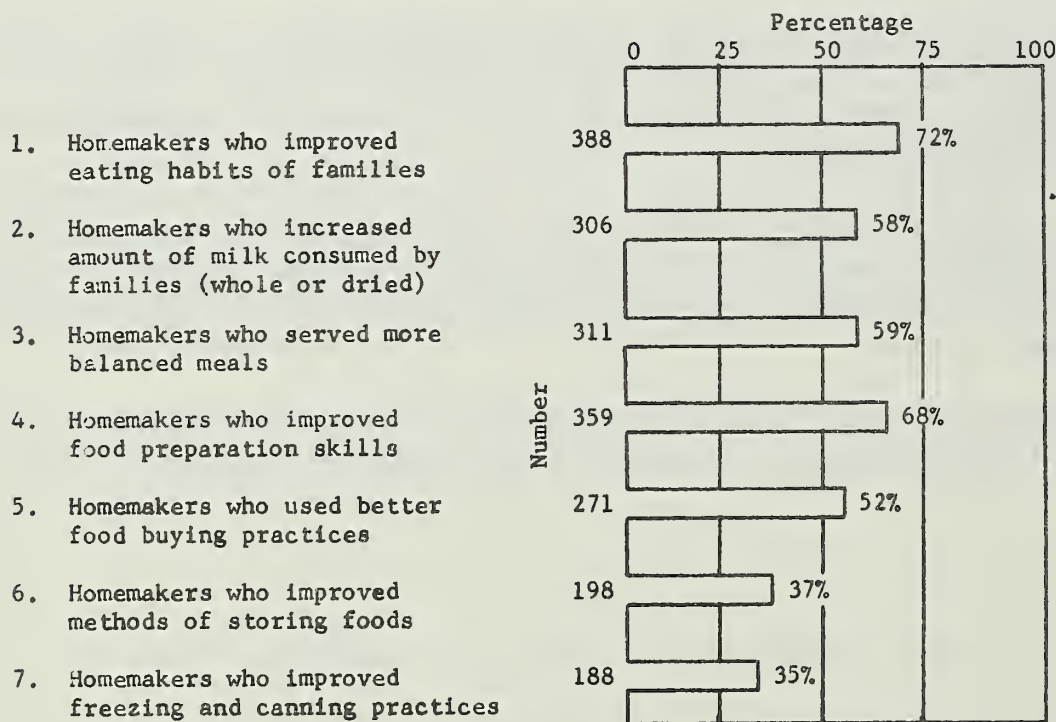
Pilot Projects

The best documented study is the Five-Year Pilot Project in Alabama, 1964-1969. Here the one-to-one method was used to teach homemakers nutrition by telling, showing, and doing with them and repeating the process until homemakers became confident and began using this nutrition information on their own.

This working visit method of teaching was designed to meet the interests and abilities of these homemakers on their own economic and educational levels.

As the project progressed increasing numbers of young low-income homemakers participated and showed significant changes (Table A1) in the pattern of feeding their families.

Table A1 -- Changes made in feeding families. (Based on 531 families).



Source: Alabama Study

Paraprofessionals participating in this pilot study represented a wide range of educational levels from high school to college graduates. Those who stayed with the program were on the lower economical end, but they could not be considered indigenous. These experienced and rather well educated paraprofessionals also taught other home economics subjects.

Results of the study:

- (a) An educational program tailored to the interests, needs, competencies, and economic and educational levels of the homemaker was effective in changing eating habits.
- (b) Paraprofessionals, under the supervision of professional Home Economists, can be trained to effectively teach low-income homemakers on an individual and group basis.

The South Providence, Rhode Island Project, 1966. The Extension Service conducted home economic related programs in the urban slum dwellings.

Results of the study:

- (a) Traditional rural Cooperative Extension model can be modified to meet the needs of families living in urban slums.

The Texas Project, 1962-1967, identified, by means of a controlled action research effort, the most effective method for reaching Mexican-American families. Both behavioral changes and comparative effectiveness of methods were tested.

Results of the study:

- (a) Mass media such as television, radio, newspaper, monthly newsletters, are effective methods of reaching low-income audiences and to reinforce individual and group learning.

The Boston, Massachusetts Study, 1963, in the South End Housing Development, brought together families to help them adjust to living in a development. Teaching was done by paraprofessionals in small group meetings and in home visits.

Results of the study:

- (a) An educational program tailored to the interests, needs, competencies, and economic and educational levels of the homemaker was effective in changing eating habits.

The 2-Year Missouri Project, 1965, was funded by the Ford Foundation for the purpose of testing the effectiveness of present Extension methods in an urban area with low-income families. A professional made the contacts and taught in home visits or small groups. Volunteers assisted in follow-up contact with families about what the professional had taught. Results of this study revealed that 50 percent of those who attended a demonstration meeting practiced what they learned by preparing the demonstrated food in

their home. Seventy percent of those participating had prepared USDA commodity foods after the demonstration and "enjoyed them more because they had learned how to incorporate the food into meals," in addition to improving food quality and taste. Forty-four percent of homemakers reported getting more for their food money. Forty-five percent had learned different ways to use commodity foods. The difference in the food the families ate in 1963 when they entered the program and what they reported eating in 1965 indicated marked food behavior changes.

Results of the study:

- (a) Traditional rural Cooperative Extension model can be modified to meet the needs of families living in urban slums.
- (b) Volunteers can assist in teaching and can help homemakers put into practice nutrition principles taught by the professional.

EFNEP Evaluation Studies Initiated by Extension Service, USDA

Completed:

- . Program Evaluation-January to July 1969, Expanded Food and Nutrition Education Program - by Datagraphics, Inc., 1969.
- . Program Performance 1971-Expanded Food and Nutrition Education Program - by Datagraphics, Inc., 1971.
- . Impact of the Expanded Food and Nutrition Education Program on Low-Income Families-An Indepth Analysis - by Economic Research Service, USDA, February 1972.
- . Families in the Expanded Food and Nutrition Education Program: Comparison of Food Stamp and Food Distribution Program Participants and Nonparticipants - by Economic Research Service, USDA, September 1973.
- . Progression of Families in the Expanded Food and Nutrition Education Program: A Study of Selected Units in Florida and Georgia - by Economic Research Service, USDA, 1972. (Currently being printed)
- . Youth Phase (4-H EFNEP) of the Expanded Food and Nutrition Education Program - by Economic Research Service, 1972. (Currently being printed)
- . Program Aides: A Study of Aides Employed in the Expanded Food and Nutrition Education Program - by Economic Research Service, USDA, 1972. (Unpublished)
- . The Expanded Food and Nutrition Education Program 1969-1973, A Preliminary Review - by Economic Research Service, USDA, 1975. (Unpublished)
- . An Evaluation of the Mulligan Stew 4-H Television Series for Extension Service, USDA - by Abt Associates Inc., December 1974.
- . Evaluation of Phonoviewer Teaching Method - by Wisconsin University, 1974-75.

In Progress:

- . Development and Application of a Tool to Assist in the Progression of EFNEP - by Synectics Corporation, 1974-76.
- . An Evaluation Study of the Use and Effectiveness of Lesson Series Developed by ES for EFNEP Youth-Age 8-12 year olds - by University of North Carolina, 1974-75.

APPENDIX D

EFNEP Special Projects Funded by Extension Service, USDA

Completed:

- "Development of Single Concept Film for EFNEP" - Kentucky
- "Evaluation of the Use of Group Learning" - Ohio
- "Orientation Training for Replacement Nutrition Education Assistants or Aides" - Missouri
- "Independent Study Course for Nutrition Assistant" - Missouri
- "Evaluation of the Acceptance or Rejection of Nutritional Advice as Influenced by the Decision-Making Pattern of Heads of Households in EFNEP" - Kentucky
- "Production of Food Buying TV Film" - Missouri
- "Tri-County Experimental Video-Tape Delivery System for Family Counselor Education" - Pennsylvania
- "A Study of Certain Personality and Skill Characteristics of the EFNEP Aides and Homemakers" - Washington
- "Low Cost Storage Improvement Project with Emphasis on Food and Food Related Storage" - Oklahoma
- "Low Cost Storage Improvement Project with Emphasis on Food and Food Related Storage" - North Carolina
- "Nutrition Research and Education Project between New York Medical College, East Harlem Health Council, and Cornell University" - New York
- "Shape Your Future Teenager Nutrition" - South Carolina
- "Reimbursement of Volunteer" - Missouri

In Progress or have not received final report:

- "Development of Volunteer Leadership Among Disadvantaged People" - Missouri
- "The Development of a Rapid and Objective Procedure to Evaluate Progress in Nutrition Programs" - Michigan
- "Evaluation of Program Effectiveness Through Multi-Agency Cooperation in Use of Aides" - Maryland
- "Development of Self-Determined Group Project in EFNEP for Low-Income Teenager Youth" - Arizona
- "Extension Support for a New Effort in Training 4-H Leaders" - Washington
- "The Use of Paraprofessionals to Mobilize Volunteers for Nutrition Education and Community Growth" - Maine

APPENDIX E
Selected EFNEP Studies Conducted in States*

ALABAMA

Dunkleberger, J.E., Martin, Nancy W., Pratt, Anne B. "Reaching the Hard to Reach with EFNEP." This study was funded as a Hatch Act Project in Rural Development--Alabama Project 318. It is a part of a larger study now underway involving staff from both the Cooperative Extension Service and Agriculture Experiment Stations.

Owens, Barbara. "Identifiable Characteristics of Good Program Assistant Performance in Alabama Expanded Food and Nutrition Education Program." Louisiana State University, 1974.

DELAWARE

Decker, Irene. "An Evaluation Study of the Expanded Food and Nutrition Education Program in Delaware." University of Delaware, 1974.

Kingdon, Lorraine B. "Analysis of the Effects of the Expanded Delaware Nutrition Education Program on Low-income Families in three Delaware Counties." University of Delaware, 1973.

ILLINOIS

Reber, Bob. "Food Recall Study." Study of food recall scores of 857 EFNEP homemakers who had third food recall taken December 1973. College of Agriculture, University of Illinois, 1974.

IOWA

Benedict, Linda Foster. "The Development of a Nutrition Education game for the Expanded Nutrition Program in Black Hawk County, Iowa." University of Northern Iowa, 1972.

Chakrovorty, Malati Surendra. "Case Study of Family Food Aides in Expanded Nutrition Program." Iowa State University, 1972.

Linn, Janet. "Analysis of Concepts Held by Family Food Aides." Iowa State University, 1971.

*The studies listed are those that have a direct relationship to the objective and concept of the program. A majority of the studies has been conducted in partial fulfillment of the requirements for a degree program. Studies that have been conducted under contractual agreement with ES, USDA and those used as reference are listed in another section of the report.

IOWA (Con't)

Myers, Shirley Evelyn. "The Impact of Paraprofessionals on Home Economics Extension Personnel and Programs." Iowa State University, 1970.

Ombwara, Stella A.K. "Nutrition Concepts of Youth in the Iowa Expanded Nutrition Program." Iowa State University, 1972.

Smith, Ruth Louise. "Tasks Performed by Iowa Extension Family Food Aides." Iowa State University, 1972.

Watson, June. "Evaluation of Food and Nutrition Concepts of Iowa Youth in the Expanded Nutrition Program Using a Slide-Tape Presentation." Iowa State University, 1975.

KANSAS

Hodges, Jean. "The Influence of Certain Demographic Criteria on the Change in Habits on the Underprivileged in the Expanded Food and Nutrition Education Program." Wichita State University, 1971.

Triplett, Clyde Merlin. "The Relationship of Selected Characteristics of Aides in the Kansas Cooperative Extension Service to Their Role Success." Kansas State University, 1971.

KENTUCKY

Maruyama, Fudeko, Hammond, Lucy T. "Impact of a Nutrition Education Program on Appalachian Families in Poverty." University of Kentucky, 1974.

LOUISIANA

Gassie, Edward W. "An Evaluation of the Expanded Nutrition Education Program in Six Louisiana Parishes." Louisiana State University, 1971.

Hodgkins, Earl E. "Food and Nutrition Patterns Among Black Adult Males in Selected Louisiana Parishes, 1974." Louisiana State University, 1974.

Jones, J.H. "Evaluation of the Louisiana Nutrition Education Program." Louisiana State University, 1969.

Montgomery, Donna E. "An Evaluation of a Youth Nutrition Education Program by Age, Calcasieu Parish, 1970." Louisiana State University, 1970.

Swazer, Arniece A. "A Comparison of Homemakers Enrolled in the Expanded Nutrition Program By Extent of Usage of Food Stamps." Louisiana State University, 1972.

LOUISIANA (Con't)

Verma, Satish, Jones, J.H. "Louisiana Expanded Food and Nutrition Education Parish - Are We Doing As Well As We Think?" Louisiana State University, 1974.

Walker, Kathleen F. "Factors Associated with the Effectiveness of Nutrition Education Among Economically Disadvantaged Youth." Louisiana State University, 1970.

MARYLAND

Green, Lawrence, Li Wang, Virginia, Ephross, Paul. "A 3-Year Longitudinal Study of the Impact of the Nutrition Aides in Knowledge Attitudes and Practices of Rural Poor Homemakers." 1973

Li Wang, Virginia, Green, Lawrence, Ephross, Paul. "Not Forgotten but Still Poor." Cooperative Extension Service, University of Maryland, 1971.

Li Wang, Virginia, Ephross, Paul. "Poor But Not Forgotten--An Evaluation Study of Expanded Food and Nutrition Education Program in Maryland." Cooperative Extension, University of Maryland, 1970.

Poffenberger, Linda L. "Relationship between Leadership and Self-Esteem Characteristics of Paraprofessionals and Nutrition Change in a Client Sample." University of Maryland, 1974.

MINNESOTA

Ramsey, Charles E. "Evaluation of Side Effects of the Expanded Food and Nutrition Education Program: A Summary." University of Minnesota, 1972.

MISSOURI

Buck, Evelyn Curby. "Financial Management Practices of Homemakers Enrolled in the Expanded Food and Nutrition Education Program in the East-West Gateway Area in Missouri." University of Missouri, 1973.

Carruth, Betty Ruth. "Attitudes, Personality Traits and Nutrition Knowledge as Predictors of Nutrition Related Behavior of Nutrition Education Assistants." University of Missouri, 1974.

Nolan, Jeanne, Gross, John. "An Evaluation of the Influence of the Expanded Food and Nutrition Education Program in Missouri." University of Missouri, 1975.

O'Neal, Robert. "Evaluation of the Nutritional Status of Nutrition Education Assistants in the Expanded Food and Nutrition Education Program in Missouri." University of Missouri, 1973.

NORTH DAKOTA

Backman, Marilyn J. "Job Satisfaction and Job Dissatisfaction as Perceived by Expanded Nutrition Program Assistants of the North Dakota Cooperative Extension Service." 1972.

OHIO

Mortvedt, Marjorie M. "The Relationship Between Selected Characteristics of Aides and Homemakers in the Expanded Food and Nutrition Education Program and Aide Effectiveness." Cooperative Extension Service, Ohio State University, 1974.

Mortvedt, Marjorie M. "Evaluation of the Use of Group Dynamics Training in the Expanded Food and Nutrition Education Program." Ohio State University, 1974.

Mortvedt, Marjorie M. "The Relationship between EFNEP Aide and Homemaker Characteristics and Aide Effectiveness." Ohio State University, 1974.

Rountree, Mary Constance. "Effectiveness of the Expanded Food and Nutrition Education Program in Producing Improvements in Diets of Homemakers." Ohio State University, 1973.

Sumita, Roy. "Factors Related to the Adoption of Food Practices by Low-Income Homemakers in the Expanded Food and Nutrition Education Program in Ohio." Ohio State University, 1973.

Wharton, Carol Sue. "The Impact of the Expanded Food and Nutrition Education Program on Participant Families." Ohio State University, 1972.

OKLAHOMA

Montgomery, Janet. "Comparison of Concentrated Teaching Situation with State Teaching Situation in the EFNEP in Hugo (Choctaw county), Oklahoma." Oklahoma State University.

NEW JERSEY

Burkart, Audrey C. "Study of Foods Selected by Eighty-one New Jersey Homemakers as Reflected in Four Family Records, Part II from Jan. 69 thru Dec. 70." Rutgers University, 1972.

Collier, Adele. "Improving the Food Management Skills of the Low-Income Homemaker in Passaic County - The Extension Approach." Montclair State College, 1972.

Rossi, Daniel. "The Development of Selective Guidelines for Predicting the Success of Prospective Aides Entering the Nutrition Education Program." Cook College, Rutgers University, 1973.

NEW JERSEY (Con't)

Speelman, Roseanne G. "A Test of Growth of Nutritional Knowledge Within the Expanded Food and Nutrition Education Program." Cook College, Rutgers University, 1972.

NEW YORK

Bowering, J., Parker, S.L., Morrison, M.A. "East Harlem Nutrition Education Program: Influence of EFNEP Aides on Dietary Practices of Pregnant Women and Infants." Cornell University, 1975.

Engelbrecht, Walda M. "Follow-up of Paraprofessionals Working with Low-Income Families." Cornell University, 1972.

Loomis, Marianne R. "Development of Instruments to Evaluate the Success of Homemakers in the Expanded Food and Nutrition Education Program." Cornell University, 1973.

Stuhmiller, Emilie M. "Development and Use of Instruments to Assess the Effectiveness of Paraprofessionals in Working with Low-Income Families." Cornell University, 1973.

Yerka, Bettie Lee. "Effectiveness of Paraprofessionals in Working with Low-Income Families: An Experiment." Cornell University, 1974.

NORTH CAROLINA

Johnson, Martha R. "The Effect of the Extension Service's Youth Nutrition Lesson Series and Selected Factors in the Teaching/Learning Environment on Nutrition Behavior Change in Disadvantaged Youth." North Carolina State University, 1975.

Rapking, M. Edward. "An Exploratory Study of Supervision in the Expanded Food and Nutrition Education Program in the Virginia Extension Service." North Carolina State University, 1972.

SOUTH DAKOTA

Fleming, Mary J. "Program Leader, EFNEP, South Dakota." South Dakota State University, 1973.

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Davis, Evangeline Freeland. "Characteristics of Extension EFNEP Program Assistants in Six Selected East Tennessee Counties." University of Tennessee, 1974.

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Martin, Barbara Jean. "Factors Influencing Foods and Nutrition Knowledge of Homemakers Enrolled in the Expanded Nutrition Program." Texas Tech University, 1970.

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Pelphrey, Linda. "Evaluation of the Expanded Food and Nutrition Education Program in Smyth County." VPI & SU, 1973.

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Griffiths, Marcia. "An Evaluation of Concurrent Parent-Child Teaching in Nutrition Education." University of Wisconsin, 1975.

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6. Program Aides: A Study of Aides Employed in the Expanded Food and Nutrition Education Program - Economic Research Service, USDA, 1972. (Unpublished)
7. Information from States on Estimated Program Resources Outside of Federal EFNEP and Other Federal Extension Funds, 1975.
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19. Potential Number of Families and the Percent of Potential Enrolled in EFNEP (Table 7) - David M. Nelson, University of Minnesota and Carla Grimly, Extension Service, USDA, 1974.
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21. Guide for Comprehensive EFNEP Review, HE-83 - Robert E. Honnold and Minerva O. Murphy, Extension Service, USDA, 1974.
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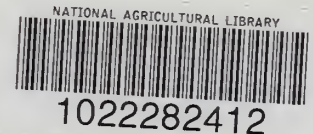
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* NATIONAL AGRICULTURAL LIBRARY



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